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EXAMINER				
CHAWLA, JYOTI				
ART UNIT		PAPER NUMBER		
1794				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/622,115

Applicant(s)

GROUX ET AL.

Examiner

JYOTI CHAWLA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12 and 14-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) _____ is/are rejected.
7) ☒ Claim(s) 1,3-12 and 14-17 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 6, 2009 has been entered. Applicant has amended claims 1 and 12. Claims 1, 3-12, 14-17 are pending and examined in the application.

Claim Rejections - 35 USC § 112 (First paragraph)

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-12 and 14-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Amendment to latest claims 1 and 12 (received 4/21/09) once again includes the limitation "the milk product is room temperature stable for at least one month and is not cooled below room temperature to provide the foamed composition,". As claimed "the milk product is stable at room temperature for at least one month", however, applicant's disclosure (Specification Page 4, lines 19-26 and Example 2) states "On storage, the product remains stable for months without any visible sign of physical instability. It is possible with the product of the invention to reach an overrun of 5 about 300% (reached by using whipping tools) and the foam obtained remained stable for more than 2 hours at room temperature." However, the disclosure of Example 2 fails to provide specifics of storage temperature (such as, room temperature). Further, Page 2, line 33 of the disclosure states that "the product is whippable and thick at room

temperature" which also does not disclose the storage temperature of the product as claimed. Thus as claimed, the storage of product at room temperature has not been disclosed. Further, foam stability for 2 hours is not the same as product stability for at least one month, as instantly claimed. Furthermore, it is not clear as to what is included in the term "room temperature stable" as recited in the claims. Thus claims 1, 3-12 and 14-17 include subject matter that was not disclosed in a way to enable one of skill at the time of the invention to make or use the product with the recited characteristics.

Claim Rejections - 35 USC § 112 (Second paragraph)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-12 and 14-17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 12 and 17 are indefinite for the recitation of "the milk product is room temperature stable for at least one month and does not need to be cooled to provide the foamed composition,". It is unclear as recited as to what is meant by "room temperature stable". The term "stable" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear whether the term "stable" refers to the stability is with reference to what property of the composition; e.g. is it stability to remain in an emulsion form at room temperature or the term "stable" refers to the physical property of the foamed product to retain its foaminess at room temperature or microbial safety of the product upon storage at room temperature or "stable" refers to the is applied to the fat content of the product which does not get oxidized upon storage at room temperature. Clarification and /or correction is required.

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Claims are also indefinite for the recitation of proportions and ranges, however, as claimed it is not clear whether, these proportions are by weight or by volume.

Clarification and/or correction is required.

Claim Rejections - 35 USC § 102/103

1) Rejection of claims 1, 5, 8, 10 and 11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jonas (US 4,012,533) made in the previous office action has been withdrawn based on applicant's amendments and remarks dated 4/21/09.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.
Ascertaining the differences between the prior art and the claims at issue.
Resolving the level of ordinary skill in the pertinent art.
Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

(A) Rejection of claims 3-4, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonas in view of Gonsalves et al (U.S. 6,033,711) made in the previous office action has been withdrawn based on applicant's amendments and remarks dated 4/21/09.

(B) Rejection of claims 9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonas in view of Gonsalves further in view of Lynch (U.S. 5,759,609) made in the previous office action has been withdrawn based on applicant's amendments and remarks dated 4/21/09.

(C) Rejection of claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonas in view of Gonsalves further in view of the combination of Lynch (U.S. 5,759,609) and Thompson (U.S. 3,230,091) made in the previous office action has been withdrawn based on applicant's amendments and remarks dated 4/21/09.

(D) Rejection of claims 1, 3-8, 10-11, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staackmann (US 3,519,440) in view of Gonsalves (U.S. 6,033,711) made in the previous office action has been withdrawn based on applicant's amendments and remarks dated 4/21/09.

(E) Claims 1, 3-5, 7, 10-11, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petricca (US 4107343) in view of Staackmann (US 3,519,440).

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Milk products with varying amount of fats, proteins and emulsifiers and stabilizers were that were stable at room temperature were known at the time of the invention. Regarding claim 1, Petricca teaches of a milk product comprising 20-30% fat (claimed range 0-40%), 0.5 to 2.5 and up to 4% dispersible protein i.e., sodium caseinate, which is a non-fat solid and sucrose 7-20% (see column 1, lines 40-45), which are both non-fat solids and their amount falls in the claimed range 5-23% (Also see Petricca tables I and II), 0.75-2.5% emulsifiers. Petricca discloses of microcrystalline cellulose and carboxymethyl cellulose combination as thickener (i.e., a stabilizer) (Column 1, lines 57-59). Regarding water Petricca discloses 45-60% water (Column 1, lines 42-44) as instantly claimed.

Regarding the limitation that the milk product is room temperature stable for at least one month and does not need to be cooled prior to providing the foamed composition Petricca discloses "such emulsion being substantially stable against separation and/or gelation for at least about 1 year at room temperature under aseptic conditions and whippable in the temperature range of 40° to 100° F. to at least about 200% overrun" (Column 1, lines 52-56). Petricca further teaches that the product can be whipped at 70° F (See Column 6, lines 38-50, especially lines 44 and 50), which includes the recited limitations of claim 1.

Regarding the limitation of high temperature processing as recited in claim 1, it is noted that it is a process limitation and "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In the instant case it is noted that high temperature processing of milk products was well known. Petricca teaches of sterilization (Petricca Column 2, lines 55-60).

Regarding the limitation of emulsifiers as recited in claims 1 and 7, Petricca discloses that "emulsifiers consisting essentially of a major proportion of Propylene Glycol Monostearate or hexaglycerol distearate...and minor proportion of a combination of ethoxylated sorbitan ester..., sorbitan monostearate... and lecithin" (Column 1, lines 40-63), which includes Propylene Glycol Monostearate and sorbitan monostearate which is a monoglyceride (i.e., Petricca teaches at least two emulsifiers as claimed). Petricca also teaches of fatty acid esters of sorbitan (such as, sorbitan monostearate in the range of 0.05 to 0.5% (Column 2, Table I and II), mono and diglycerides (See column 3, lines 59 to Column 4, line 12). Thus Petricca teaches of monoglycerides, however, unsaturated monoglycerides and their amount in the composition emulsifiers as claimed, is not disclosed. However, Regarding the selection of emulsifiers Staackmann discloses from the group consisting of propylene glycol monostearate (Column 3, lines 48-68), and fatty acid glycerides obtained from various fatty acids including unsaturated fatty acids, such as oleic, palmitoleic, myristoleic etc (See Staackmann Column 3, lines 3-12, 30-35 and 48-68) i.e., unsaturated monoglycerides and combinations thereof in the amount of 0.1% (Column 5, composition A), which falls within 0.005% to 0.15% unsaturated monoglyceride as recited., as claimed. Thus, at least two emulsifiers including monoglycerides of unsaturated fatty acids, from applicant's recited list of emulsifiers and combinations thereof were known to be added to whippable or whipped milk compositions (Staackmann and Jonas), in order to emulsify the fat in the emulsion. Since Petricca and Staackmann both make stable emulsions, as claimed, it would be obvious that the emulsifiers function similarly, i.e., would be regarded as functional equivalents. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one art recognized functional equivalent (i.e., ethoxylated sorbitan ester..., sorbitan monostearate... and lecithin (emulsifiers)) for another (i.e., monoglyceride of unsaturated fatty acid) in the milk product as disclosed by Petricca, depending on which emulsifying agents were more available and affordable at the time the invention was made. The Courts have held that the selection of a known material, which is based upon its suitability for the intended use, is within the

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ambit of one of ordinary skill in the art. See *In re Leshin*, 125 USPQ 416 (CCPA 1960) (see MPEP § 2144.07).

Regarding claim 3, Petricca teaches of stabilizers or thickeners and discloses "It is preferred that the thickener be a major proportion of microcrystalline cellulose and a minor amount of carboxymethyl cellulose" (Column 1, lines 57-59). Regarding the amount of thickener or stabilizer, Petricca discloses 0.1 to 0.75% thickener (Column 1, lines 43-45), which falls in the recited range of the applicant.

Regarding claim 4, Petricca teaches of microcrystalline cellulose and carboxymethyl cellulose combination as thickener (i.e., a stabilizer) (Column 1, lines 57-59). Petricca discloses the use of hydrocolloids in the milk composition, including guar, gum arabic, locust bean, acacia, tragacanth, carrageenan, xanthan, ghatti, agar and karaya (See Column 3, lines 10-15), but the reference is silent about adding algin or sodium salt of algin as a stabilizer in the milk composition. However, sodium alginate is well known in the art as a thickening agent/ stabilizer for emulsions and works in a manner that is similar to the hydrocolloids disclosed by Petricca. For example, Staackmann teaches a milk product comprising sodium alginate (algin) (Column 4, lines 28-34) in the recited range of 0.05% to 0.1%. Thus, addition of alginate in the recited amount in emulsion type milk products was known at the time of the invention for the purpose of stabilizing the emulsion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one art recognized functional equivalent (i.e., gums and hydrocolloids of Petricca) for another (i.e., alginate) in the milk product as disclosed by Petricca, depending on which stabilizing agents were more available and affordable at the time the invention was made. The Courts have held that the selection of a known material, which is based upon its suitability for the intended use, is within the ambit of one of ordinary skill in the art. See *In re Leshin*, 125 USPQ 416 (CCPA 1960) (see MPEP § 2144.07).

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Regarding claim 5, Petricca teaches a milk product of claim 1, comprising 0.25 to 2.5% propylene glycol monostearate (Column 2, lines 35-40, TABLE II).

Regarding claim 10, Petricca teaches that the fat is vegetable or animal origin (which would include dairy fat) (See Petricca Column 3, lines 1-6), as claimed. Staackmann also teaches that fats can be dairy or non-dairy fats, or a mixture thereof (Column 2, lines 47-65).

Regarding claim 11, Petricca teaches sucrose, which is a carbohydrate (See Column 2, Table I), as claimed. Further, Staackmann teaches a milk product of claim 1, further comprising one or more of carbohydrates, i.e., starches (column 4, lines 23-25), mineral salts, colorants, or flavorings (Column 3, lines 1-15 and Columns 5-6 Compositions A-D), as recited.

Regarding claim 15, Petricca teaches of a foam that is stable for at least 10 minutes after foaming using a foaming device (See Column 7, where no significant air coalescence is observed for 4-8 hours, which includes applicant's recited time. Further, Staackmann teaches a process for producing a foam that is stable for at least 10 minutes which comprises forming a milk product by the method of claim 12 and forming a foam from the milk product by shaking or by using a foaming device (Column 1, line 68 to Column 2, line 24).

Regarding claim 17, Petricca does not teach dispensing from an aerosol can, however, Staackmann teaches a spray can (i.e., aerosol container) that contains the milk product of claim 1 and is capable of dispensing the product as a stable white foam (Column 1, lines 68-72 and Column 2, lines 7-10). Aerosol cans were known to be used for dispersal of whipped products at the time of the invention. Therefore, it would have been a matter of routine determination for one of ordinary skill in the art at the time of

the invention to modify Petricca in view of Staackmann further and utilize the foaming device as taught by Staackmann in order to dispense a foamy milk product as instantly claimed. One of ordinary skill would have been motivated to do so at least for the purpose of creating a readily dispersible milk product for convenience to the consumer.

(F) Claims 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petricca (US 4107343) in view of Staackmann (US 3,519,440) further in view of Gilmore et al (US 4199608), hereinafter Gilmore.

Petricca in view of Staackmann has been applied to claims 1 and 7 above.

Regarding claim 6, Petricca in view of Staackmann teaches milk product as recited in claim 1. Petricca discloses that "emulsifiers consisting essentially of a major proportion of Propylene Glycol Monostearate or hexaglycerol distearate...and minor proportion of a combination of ethoxylated sorbitan ester..., sorbitan monostearate... and lecithin" (Column 1, lines 40-63), which includes Propylene Glycol Monostearate and sorbitan monostearate which is a monoglyceride (i.e., Petricca teaches at least two emulsifiers as claimed). Petricca also teaches of fatty acid esters of sorbitan, such as, sorbitan monostearate in the range of 0.05 to 0.5% and Polysorbate 80 (i.e., polyethoxylated sorbitan monooleate) in an amount 0.01 to 0.1%, (see Column 2, Table I and II), which includes the recited range of the applicant in terms of sorbitan ester's amount. Petricca is silent regarding sorbitan esters including sorbitan tristearate (also known as Polysorbate 65 or Polyethoxylated sorbitan tristearate). However, food products, such as creamers, coffee whiteners and whippable toppings etc., which utilize fatty acid esters of sorbitan, including polyoxyethylene sorbitan tristearate (i.e., sorbitan tristearate or Polysorbate 65) and polyoxyethylene sorbitan monooleate Polysorbate 80, as emulsifiers, were known in the art at the time of the invention, e.g., Gilmore (see Column 1, lines 9-35 and Column 5, lines 18-26). Regarding the specific amount of such sorbitol esters, Gilmore also discloses that sorbitan esters emulsifiers are employed in a very small amount (Gilmore, Column 5, lines 27-29). Further, Gilmore

discloses an exemplary addition of 0.03% of Polysorbate 80 (an emulsifier in the same category as sorbitan tristearate) in a composition (see Gilmore, Column 8, Example 2, lines 20-23), which falls in applicants' recited range of the applicant. Thus, fatty acid esters of sorbitan including sorbitan monostearate, sorbitan tristearate (Polysorbate 65) and sorbitan monooleate (Polysorbate 80) were known and utilized in whipped or whippable composition in recited amounts at the time of the invention, as taught by Petricca and Gilmore. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one art recognized functional equivalent (i.e., sorbitan monostearate or sorbitan monooleate of Petricca) for another (i.e., sorbitan tristearate of Gilmore) in the milk product as disclosed by Petricca, at least depending on which ester of sorbitan was more effective as an emulsifier, more affordable and more easily available at the time the invention was made. The Courts have held that the selection of a known material, which is based upon its suitability for the intended use, is within the ambit of one of ordinary skill in the art. See *In re Leshin*, 125 USPQ 416 (CCPA 1960) (see MPEP § 2144.07).

Regarding claims 6, 8 and 9 Petricca in view of Staackmann teaches a milk product comprising Petricca teaches of a milk product comprising 20-30% fat (claimed range 0-25% for claim 8 and 25-40% for claim 9), 0.25% to 02.5% propylene glycol monostearate (Column 2, Tables I and II) which falls in the ranges for both claims 8 and 9, 0.1% unsaturated monoglyceride (In view of Staackmann as discussed regarding claim 7 above, which falls in the range for claim 9) with microcrystalline cellulose and carboxymethyl cellulose combination as thickener (i.e., a stabilizer) (Column 1, lines 57-59). Regarding water Petricca discloses 45-60% water (Column 1, lines 42-44) as instantly claimed.

Regarding sorbitan tristearate, Petricca in view of Gilmore teaches the recited range, as discussed in claim 6 above.

Regarding the unsaturated monoglyceride range recited in claim 8, Petricca in view of Staackmann teaches 0.1% unsaturated monoglyceride which is more than instantly

claimed amount of 0.005% to 0.015%. However, it was known to modify the relative proportion of emulsifiers in the whippable or foamable compositions, e.g., Petricca discloses various ranges for various emulsifiers that are employed, e.g., the amount of Polysorbate 80, which is also a sorbitan ester varies from 0.01 to 0.1% (See Petricca Column 2, Tables I and II. Furthermore amount of lecithin ranges from 0-0.15% (See Tables I and II) Therefore, to modify one of the emulsifier amounts when more than one emulsifier is employed would have been a matter of routine determination for one of ordinary skill in the art at the time of the invention at least based on the cost, availability, storability and desired characteristics of the emulsifier. One of ordinary skill would have been further motivated to modify or adjust the amount of one of the emulsifiers in order to obtain a combination of emulsifiers that extend the storage life of the milk based composition.

(G) Claims 12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petricca (US 4107343) in view of the combination of Staackmann (US 3,519,440), and Gilmore (US 4199608), further in view of Anderson et al (US 4888194), hereinafter Anderson.

Regarding claim 12, Petricca teaches of a method of making a sterilized and homogenized whippable emulsion comprising adding stabilizers, sweeteners, protein and milk components and flavors, emulsifiers and fats as claimed.

Regarding the limitation of specific emulsifiers as recited in claims 12, Petricca discloses that "emulsifiers consisting essentially of a major proportion of Propylene Glycol Monostearate, ethoxylated sorbitan ester, sorbitan monostearate" (Column 1, lines 40-63), which includes Propylene Glycol Monostearate as recited. Petricca also teaches of fatty acid esters of sorbitan (such as, sorbitan monostearate in the range of 0.05 to 0.5% (Column 2, Table I and II), mono and diglycerides (See column 3, lines 59 to Column 4, line 12). Thus, Petricca teaches of a combination of emulsifiers which includes Propylene Glycol Monostearate, monoglycerides, sorbitan esters.

Petricca however is silent as to the monosaccharides being unsaturated monoglycerides and their amount in the composition emulsifiers as claimed, is not disclosed. Staackmann discloses whippable milk products with emulsifiers added from the group consisting of propylene glycol monostearate (Column 3, lines 48-68), and fatty acid glycerides obtained from various fatty acids including unsaturated fatty acids, such as oleic, palmitoleic, myristoleic etc (See Staackmann Column 3, lines 3-12, 30-35 and 48-68) i.e., unsaturated monoglycerides and combinations thereof in the amount of 0.1% (Column 5, composition A), which falls within 0.005% to 0.15% unsaturated monoglyceride as recited., as claimed. Thus, emulsifiers including monoglycerides of unsaturated fatty acids, from applicant's recited list of emulsifiers and combinations thereof were known to be added to whippable or whipped milk compositions (Staackmann and Petricca), in order to emulsify the fat in the emulsion. Since Petricca and Staackmann both make stable emulsions, as claimed, it would be obvious that the emulsifiers function similarly, i.e., would be regarded as functional equivalents. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one art recognized functional equivalent (i.e., ethoxylated sorbitan ester..., sorbitan monostearate... and lecithin (emulsifiers)) for another (i.e., monoglyceride of unsaturated fatty acid) in the milk product as disclosed by Petricca, depending on which emulsifying agents were more available and affordable at the time the invention was made. The Courts have held that the selection of a known material, which is based upon its suitability for the intended use, is within the ambit of one of ordinary skill in the art. See *In re Leshin*, 125 USPQ 416 (CCPA 1960) (see MPEP § 2144.07).

Petricca is also silent about specific sorbitan esters that can be added to the milk composition as emulsifiers. Petricca is specifically silent whether the sorbitan ester includes sorbitan tristearate (also known as Polysorbate 65 or Polyethoxylated sorbitan tristearate). However, food products, such as creamers, coffee whiteners and whippable toppings etc., which utilize fatty acid esters of sorbitan, including polyoxyethylene sorbitan tristearate (i.e., sorbitan tristearate or Polysorbate 65) and polyoxyethylene sorbitan monooleate Polysorbate 80, as emulsifiers, were known in the art at the time of

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the invention, e.g., Gilmore (see Column 1, lines 9-35 and Column 5, lines 18-26). Regarding the specific amount of such sorbitol esters, Gilmore also discloses that sorbitan esters emulsifiers are employed in a very small amount (Gilmore, Column 5, lines 27-29). Further, Gilmore discloses an exemplary addition of 0.03% of Polysorbate 80 (an emulsifier in the same category as sorbitan tristearate) in a composition (see Gilmore, Column 8, Example 2, lines 20-23), which falls in applicants' recited range of the applicant. Thus, fatty acid esters of sorbitan including sorbitan monostearate, sorbitan tristearate (Polysorbate 65) and sorbitan monooleate (Polysorbate 80) were known and utilized in whipped or whippable composition in recited amounts at the time of the invention, as taught by Petricca and Gilmore. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute one art recognized functional equivalent (i.e., sorbitan ester of Petricca) for a specific sorbitan ester (i.e., sorbitan tristearate of Gilmore) in the milk product as disclosed by Petricca, at least depending on which ester of sorbitan was more effective as an emulsifier, more affordable and more easily available at the time the invention was made. The Courts have held that the selection of a known material, which is based upon its suitability for the intended use, is within the ambit of one of ordinary skill in the art. See *In re Leshin*, 125 USPQ 416 (CCPA 1960) (see MPEP § 2144.07).

Regarding the limitation that the milk product is room temperature stable for at least one month and does not need to be cooled prior to providing the foamed composition Petricca discloses "such emulsion being substantially stable against separation and/or gelation for at least about 1 year at room temperature under aseptic conditions and whippable in the temperature range of 40° to 100° F. to at least about 200% overrun" (Column 1, lines 52-56). Petricca further teaches that the product can be whipped at 70° F (See Column 6, lines 38-50, especially lines 44 and 50), which includes the recited limitations of claim 12.

Regarding the process of making a whippable milk product of claim 12, Petricca teaches a method of making a whippable emulsion comprising adding stabilizers,

sweeteners, protein and milk components and flavors and water etc., to which the emulsifiers are added and then fats are added. Thereafter the mixture is agitated and sterilized and cooled and aseptically homogenized (See Petricca Column 2, lines 45-64). Regarding the limitation of high temperature processing Petricca teaches of sterilization (Petricca Column 2, lines 55-60), as claimed. Thus, Petricca teaches the addition of fats after the addition of emulsifiers as instantly claimed. Regarding the order of steps applicants' are referred to MPEP 2144.04 [R-1] IV where it is stated that selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results.

Petricca is silent about the limitations of adding the emulsifiers to skim milk and then adding cream as a source of fat to the to the emulsion (lines 4-7 of claim 12 as recited). However, utilizing various dairy products, such as skim milk and cream in making a milk product was known at the time of the invention. Also addition of emulsifiers, additives and dry ingredients to a dairy product and forming an emulsion before adding more dairy product was also known at the time of the invention. For example, Anderson teaches a process of making a shelf stable aseptic dairy product which is capable of forming stable foam upon whipping (See Anderson, Column 2, lines 35-40). Anderson's dairy composition may include dairy cream "in combination with whole or skim milk or milk solids in any proportions such that the desired butterfat content results" (Anderson, Column 3, lines 33-36). Regarding the process of making a whippable dairy product, Anderson also teaches that emulsifier is added to a portion of the cream (or dairy ingredient, such as skim milk) along with other ingredients and mixed and heated to ensure that the dry blend is completely dissolved. The mixture is then added to the remaining portion of cream and other additives added at this time with thorough mixing. The mixture is cooled and after cooling, the mixture is subjected to UHT processing (See Anderson, Column 6, lines 21-45 and lines 46-68). Thus, process steps as recited in claim 12, including adding fats after the addition of emulsifiers in a process of making a room temperature stable whippable milk product was known in the art at the time of the invention (Petricca, Column 2, lines 45-65 and column 4, lines 45-50). Also the process of making a whippable dairy product where a

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combination of dairy ingredients (skim milk, milk, milk solids and cream) are used to achieve a desired fat content was known at the time of the invention (Anderson). Moreover, process steps for making a whippable dairy product where emulsifiers are added to a part of dairy product to form an emulsion before adding the entire dairy component to the emulsion was well known in the art at the time of the invention (As taught by Anderson). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Petricca and utilize a dairy ingredient, such as skim milk to mix with emulsifiers and other dry ingredients and blend to form an emulsion before adding the dairy based fat ingredient, such as cream as taught by Anderson in the process of making a stable whippable milk product. One of ordinary skill in the art would have been motivated to modify Petricca and include one or more milk based ingredients, such as skim milk, milk, milk solids and cream in any proportions, at least for the purpose of achieving a desired fat content in the whippable milk product (Anderson, Column 3, lines 33-36). Further it is noted that new recipes for food involving the addition of common ingredients do not amount to invention merely because the coaction or cooperative relationship between the ingredients which produces new, unexpected, and useful function. In re Levin, 84 USPQ 232.

Regarding claim 14, Petricca discloses that it is preferred that the thickener (i.e., a stabilizer) comprises of microcrystalline cellulose and carboxymethyl cellulose (Column 1, lines 57-59), as instantly claimed.

Regarding claim 16, Petricca teaches of foam that is stable for at least 10 minutes after foaming using a foaming device (See Column 7, where no significant air coalescence is observed for 4-8 hours, which includes applicant's recited time. Further, Staackmann teaches a process for producing foam that is stable for at least 10 minutes which comprises forming a milk product by the method of claim 12 and forming foam from the milk product by shaking or by using a foaming device (Column 1, line 68 to Column 2, line 24).

Response to Arguments

Applicant's arguments with respect to amended claims 1, 3-12 and 14-17 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1, 3-12 and 14-17 are rejected for reasons of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Chawla whose telephone number is (571) 272-8212. The examiner can normally be reached on 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner
Art Unit 1794

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